AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A handwriting recognition system, comprising:

an input device including a three-dimensional (3D) motion detection sensor that is configured to generate 3D motion data in response to a 3D motion, wherein a sampling rate of the 3D motion is determined and/or adjusted using a speed of the 3D motion; and

a recognition device, in communication with the input device, that is configured to receive the 3D motion data and derive corresponding two-dimensional (2D) images for handwriting recognition **wherein a proper 2D projection plane is derived for each word or character and said proper 2D projection plane is where a distance square of each sampling point, of the sampling rate, is minimal**, based on the 3D motion data.

2. (Original) The system of claim 1, wherein the recognition device includes means for performing 2D handwriting recognition based on the 2D images.

3. (Original) The system of claim 1, wherein the recognition device includes:

means for calculating corresponding 3D coordinates based on the 3D motion data;

means for constructing corresponding 3D tracks based the 3D coordinates; and

means for deriving the corresponding 2D images from the 3D tracks.

4. (Original) The system of claim 3, wherein the deriving means includes means for mapping the 3D tracks onto a 2D plane for deriving the 2D images for handwriting recognition.

5. (Original) The system of claim 3, wherein the recognition device includes means for performing 2D handwriting recognition based on the 2D images.

6. (Original) The system of claim 4, wherein the calculating means calculates the corresponding 3D coordinates of each sampling point based on the 3D motion data and a selected sampling rate.

7. (Original) The system of claim 6, wherein the recognition device further includes means for dynamically adjusting the sampling rate based on the speed of the motion.

8. (Original) The system of claim 6, wherein the deriving means includes means for deriving the 2D plane as a plane to which the sum of the distance square of each sampling point is minimal.

9. (Original) The system of claim 3, wherein the input device further includes a control circuit, responsive a user's command, that is configured to generate a control signal for transmitting to the recognition device to indicate completion of writing a word or a character.

10. (Original) The system of claim 3, wherein the motion detection sensor measures acceleration of the 3D motion in X, Y and Z axial directions to generate the 3D motion data.

11. (Original) The system of claim 5, further comprising an output device for displaying final results of the handwriting recognition.

12. (Original) The system of claim 1, wherein the input device further includes a control circuit, responsive a user's command, that is configured to generate a control signal for transmitting to the recognition device to indicate completion of writing a word or a character.

13. (Original) The system of claim 1, wherein the motion detection sensor measures acceleration of the 3D motion in X, Y and Z axial directions to generate the 3D motion data.

14. (Original) The system of claim 1, wherein the input device wirelessly transmits the 3D motion data to the recognition device.

15. (Original) The system of claim 1, wherein the recognition device includes means for performing 2D handwriting recognition based on the 2D images.

16. (Currently Amended) A computing system, comprising:

a memory;

an input device including a three-dimensional (3D) motion detection sensor that is configured to generate 3D motion data in response to a 3D motion, wherein a

sampling rate of the 3D motion is determined and/or adjusted using a speed of the 3D motion; and

a recognition device, operably coupled to the memory and in communication with the input device, that is configured to receive the 3D motion data and derive corresponding two-dimensional (2D) images for handwriting recognition **wherein a proper 2D projection plane is derived for each word or character and said proper 2D projection plane is where a distance square of each sampling point, of the sampling rate, is minimal**, based on the 3D motion data.

17. (Original) The system of claim 16, wherein the recognition device includes means for performing 2D handwriting recognition based on the 2D images.

18. (Original) The system of claim 16, wherein the recognition device includes:

means for calculating corresponding 3D coordinates based on the 3D motion data;

means for constructing corresponding 3D tracks based the 3D coordinates; and

means for deriving the corresponding 2D images from the 3D tracks.

19. (Original) The system of claim 18, wherein the deriving means includes means for mapping the 3D tracks onto a 2D plane for deriving the 2D images for handwriting recognition.

20. (Currently Amended) A handwriting recognition method using a recognition system having a three-dimensional (3D) motion detection sensor and recognition device, the method comprising the steps of:

generating 3D motion data in response to a 3D motion, using the three-dimensional (3D) motion detection sensor, wherein a sampling rate of the 3D motion is determined and/or adjusted using a speed of the 3D motion; and

deriving corresponding two-dimensional (2D) images for handwriting recognition **wherein a proper 2D projection plane is derived for each word or character and said proper 2D projection plane is where a distance square of each sampling point, of the sampling rate, is minimal**, based on the 3D motion data, using the recognition device.

21. (Original) The method of claim 20, further comprising the step of performing 2D handwriting recognition based on the 2D images.

22. (Original) The method of claim 20, further comprising the steps of:

calculating corresponding 3D coordinates based on the 3D motion data;

constructing corresponding 3D tracks based the 3D coordinates; and

deriving the corresponding 2D images from the 3D tracks.

23. (Original) The method of claim 22, wherein the step of deriving includes mapping the 3D tracks onto a 2D plane for deriving the 2D images for handwriting recognition.

24. (Original) The method of claim 22, further comprising a step of performing a 2D handwriting recognition based on the 2D images.

25. (Original) The method of claim 23, wherein the corresponding 3D coordinates of each sampling point are calculated based on the 3D motion data and a selected sampling rate.

26. (Original) The method of claim 25, further comprising a step of dynamically adjusting the sampling rate based on the speed of the motion.

27. (Original) The method of claim 25, wherein the step of deriving further includes the step of deriving the 2D plane as a plane to which the sum of the distance square of each sampling point is minimal.

28. (Original) The method of claim 22, further comprising the step of generating an indication, based on a user's command, to indicate completion of writing a word or a character.

29. (Original) The method of claim 22, further comprising the step of measuring acceleration of the 3D motion in X, Y and Z axial directions and wherein the 3D motion data are generated based on the acceleration of the 3D motion in the X, Y and Z axial directions.

30. (Original) The method of claim 24, further comprising a step of displaying final results of the handwriting recognition.

31. (Original) The method of claim 20, further comprising the steps of wirelessly transmitting the 3D motion data and wirelessly receiving the 3D motion data for calculating the 3D coordinates.

32. (Original) The method of claim 20, further comprising the step of measuring acceleration of the 3D motion in X, Y and Z axial directions and wherein the 3D motion data are generated based on the acceleration of the 3D motion in the X, Y and Z axial directions.

33. Cancelled.

34. (Original) The method of claim 20, further comprising the step of performing 2D handwriting recognition based on the 2D images.